

1633

RECEIVED

FEB 01 2001

TECH CENTER 1600/2900

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/556,246
DATE: 01/23/2001
TIME: 13:09:18

Input Set : A:\Rih26cip.app
Output Set: N:\CRF3\01232001\I556246.raw

3 <110> APPLICANT: Gregory D. Jay
5 <120> TITLE OF INVENTION: triboneclins
7 <130> FILE REFERENCE: 21486-026cip
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/556,246
10 <141> CURRENT FILING DATE: 2000-04-24
12 <150> PRIOR APPLICATION NUMBER: USSN 09/298/970
13 <151> PRIOR FILING DATE: 1999-04-23
15 <160> NUMBER OF SEQ ID NOS: 34
17 <170> SOFTWARE: PatentIn Ver. 2.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1404
21 <212> TYPE: PRT
22 <213> ORGANISM: Homo sapiens
24 <400> SEQUENCE: 1
25 Met Ala Trp Lys Thr Leu Pro Ile Tyr Leu Leu Leu Leu Ser Val
26 1 5 10 15
28 Phe Val Ile Gln Gln Val Ser Ser Gln Asp Leu Ser Ser Cys Ala Gly
29 20 25 30
31 Arg Cys Gly Glu Gly Tyr Ser Arg Asp Ala Thr Cys Asn Cys Asp Tyr
32 35 40 45
34 Asn Cys Gln His Tyr Met Glu Cys Cys Pro Asp Phe Lys Arg Val Cys
35 50 55 60
37 Thr Ala Glu Leu Ser Cys Lys Gly Arg Cys Phe Glu Ser Phe Glu Arg
38 65 70 75 80
40 Gly Arg Glu Cys Asp Cys Asp Ala Gln Cys Lys Lys Tyr Asp Lys Cys
41 85 90 95
43 Cys Pro Asp Tyr Glu Ser Phe Cys Ala Glu Val His Asn Pro Thr Ser
44 100 105 110
46 Pro Pro Ser Ser Lys Lys Ala Pro Pro Pro Ser Gly Ala Ser Gln Thr
47 115 120 125
49 Ile Lys Ser Thr Thr Lys Arg Ser Pro Lys Pro Pro Asn Lys Lys Lys
50 130 135 140
52 Thr Lys Lys Val Ile Glu Ser Glu Glu Ile Thr Glu Glu His Ser Val
53 145 150 155 160
55 Ser Glu Asn Gln Glu Ser Ser Ser Ser Ser Ser Ser Ser Ser
56 165 170 175
58 Ser Thr Ile Trp Lys Ile Lys Ser Ser Lys Asn Ser Ala Ala Asn Arg
59 180 185 190
61 Glu Leu Gln Lys Lys Leu Lys Val Lys Asp Asn Lys Lys Asn Arg Thr
62 195 200 205
64 Lys Lys Lys Pro Thr Pro Lys Pro Pro Val Val Asp Glu Ala Gly Ser
65 210 215 220
67 Gly Leu Asp Asn Gly Asp Phe Lys Val Thr Thr Pro Asp Thr Ser Thr
68 225 230 235 240
70 Thr Gln His Asn Lys Val Ser Thr Ser Pro Lys Ile Thr Thr Ala Lys
71 245 250 255
73 Pro Ile Asn Pro Arg Pro Ser Leu Pro Pro Asn Ser Asp Thr Ser Lys

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/556,246

DATE: 01/23/2001

TIME: 13:09:18

Input Set : A:\Rih26cip.app

Output Set: N:\CRF3\01232001\I556246.raw

```

74          260          265          270
76 Glu Thr Ser Leu Thr Val Asn Lys Glu Thr Thr Val Glu Thr Lys Glu
77          275          280          285
79 Thr Thr Thr Thr Asn Lys Glu Thr Ser Thr Asp Gly Lys Glu Lys Thr
80          290          295          300
82 Thr Ser Ala Lys Glu Thr Gln Ser Ile Glu Lys Thr Ser Ala Lys Asp
83 305          310          315          320
85 Leu Ala Pro Thr Ser Lys Val Leu Ala Lys Pro Thr Pro Lys Ala Glu
86          325          330          335
88 Thr Thr Thr Lys Gly Pro Ala Leu Thr Thr Pro Lys Glu Pro Thr Pro
89          340          345          350
91 Thr Thr Pro Lys Glu Pro Ala Ser Thr Thr Pro Lys Glu Pro Thr Pro
92          355          360          365
94 Thr Thr Ile Lys Ser Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr
95          370          375          380
97 Thr Thr Lys Ser Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr
98 385          390          395          400
100 Thr Lys Glu Pro Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr
101          405          410          415
103 Thr Lys Glu Pro Ala Pro Thr Thr Thr Lys Ser Ala Pro Thr Thr Pro
104          420          425          430
106 Lys Glu Pro Ala Pro Thr Thr Pro Lys Lys Pro Ala Pro Thr Thr Pro
107          435          440          445
109 Lys Glu Pro Ala Pro Thr Thr Pro Lys Glu Pro Thr Pro Thr Thr Pro
110          450          455          460
112 Lys Glu Pro Ala Pro Thr Thr Lys Glu Pro Ala Pro Thr Thr Pro Lys
113 465          470          475          480
115 Glu Pro Ala Pro Thr Ala Pro Lys Lys Pro Ala Pro Thr Thr Pro Lys
116          485          490          495
118 Glu Pro Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Thr Lys
119          500          505          510
121 Glu Pro Ser Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Thr Lys
122          515          520          525
124 Ser Ala Pro Thr Thr Thr Lys Glu Pro Ala Pro Thr Thr Thr Lys Ser
125          530          535          540
127 Ala Pro Thr Thr Pro Lys Glu Pro Ser Pro Thr Thr Thr Lys Glu Pro
128 545          550          555          560
130 Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Pro Lys Lys Pro
131          565          570          575
133 Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Pro Lys Glu Pro
134          580          585          590
136 Ala Pro Thr Thr Thr Lys Lys Pro Ala Pro Thr Ala Pro Lys Glu Pro
137          595          600          605
139 Ala Pro Thr Thr Pro Lys Glu Thr Ala Pro Thr Thr Pro Lys Lys Leu
140          610          615          620
142 Thr Pro Thr Thr Pro Glu Lys Leu Ala Pro Thr Thr Pro Glu Lys Pro
143 625          630          635          640
145 Ala Pro Thr Thr Pro Glu Glu Leu Ala Pro Thr Thr Pro Glu Glu Pro
146          645          650          655

```

RECEIVED

FEB 01 2001

TECH CENTER 1600/2900

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/556,246
 DATE: 01/23/2001
 TIME: 13:09:18
 Input Set : A:\Rih26cip.app
 Output Set: N:\CRF3\01232001\I556246.raw

```

148 Thr Pro Thr Thr Pro Glu Glu Pro Ala Pro Thr Thr Pro Lys Ala Ala
149          660          665          670
151 Ala Pro Asn Thr Pro Lys Glu Pro Ala Pro Thr Thr Pro Lys Glu Pro
152          675          680          685
154 Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Pro Lys Glu Thr
155          690          695          700
157 Ala Pro Thr Thr Pro Lys Gly Thr Ala Pro Thr Thr Leu Lys Glu Pro
158 705          710          715          720
160 Ala Pro Thr Thr Pro Lys Lys Pro Ala Pro Lys Glu Leu Ala Pro Thr
161          725          730          735
163 Thr Thr Lys Glu Pro Thr Ser Thr Thr Ser Asp Lys Pro Ala Pro Thr
164          740          745          750
166 Thr Pro Lys Gly Thr Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr
167          755          760          765
169 Thr Pro Lys Glu Pro Ala Pro Thr Thr Pro Lys Gly Thr Ala Pro Thr
170          770          775          780
172 Thr Leu Lys Glu Pro Ala Pro Thr Thr Pro Lys Lys Pro Ala Pro Lys
173 785          790          795          800
175 Glu Leu Ala Pro Thr Thr Thr Lys Gly Pro Thr Ser Thr Thr Ser Asp
176          805          810          815
178 Lys Pro Ala Pro Thr Thr Pro Lys Glu Thr Ala Pro Thr Thr Pro Lys
179          820          825          830
181 Glu Pro Ala Pro Thr Thr Pro Lys Lys Pro Ala Pro Thr Thr Pro Glu
182          835          840          845
184 Thr Pro Pro Pro Thr Thr Ser Glu Val Ser Thr Pro Thr Thr Thr Lys
185          850          855          860
187 Glu Pro Thr Thr Ile His Lys Ser Pro Asp Glu Ser Thr Pro Glu Leu
188 865          870          875          880
190 Ser Ala Glu Pro Thr Pro Lys Ala Leu Glu Asn Ser Pro Lys Glu Pro
191          885          890          895
193 Gly Val Pro Thr Thr Lys Thr Pro Ala Ala Thr Lys Pro Glu Met Thr
194          900          905          910
196 Thr Thr Ala Lys Asp Lys Thr Thr Glu Arg Asp Leu Arg Thr Thr Pro
197          915          920          925
199 Glu Thr Thr Thr Ala Ala Pro Lys Met Thr Lys Glu Thr Ala Thr Thr
200          930          935          940
202 Thr Glu Lys Thr Thr Glu Ser Lys Ile Thr Ala Thr Thr Thr Gln Val
203 945          950          955          960
205 Thr Ser Thr Thr Thr Gln Asp Thr Thr Pro Phe Lys Ile Thr Thr Leu
206          965          970          975
208 Lys Thr Thr Thr Leu Ala Pro Lys Val Thr Thr Thr Lys Lys Thr Ile
209          980          985          990
211 Thr Thr Thr Glu Ile Met Asn Lys Pro Glu Glu Thr Ala Lys Pro Lys
212          995          1000          1005
214 Asp Arg Ala Thr Asn Ser Lys Ala Thr Thr Pro Lys Pro Gln Lys Pro
215          1010          1015          1020
217 Thr Lys Ala Pro Lys Lys Pro Thr Ser Thr Lys Lys Pro Lys Thr Met
218 1025          1030          1035          1040
220 Pro Arg Val Arg Lys Pro Lys Thr Thr Pro Thr Pro Arg Lys Met Thr

```

RAW SEQUENCE LISTING DATE: 01/23/2001
 PATENT APPLICATION: US/09/556,246 TIME: 13:09:18

Input Set : A:\Rih26cip.app
 Output Set: N:\CRF3\01232001\I556246.raw

```

221          1045          1050          1055
223 Ser Thr Met Pro Glu Leu Asn Pro Thr Ser Arg Ile Ala Glu Ala Met
224          1060          1065          1070
226 Leu Gln Thr Thr Arg Pro Asn Gln Thr Pro Asn Ser Lys Leu Val
227          1075          1080          1085
229 Glu Val Asn Pro Lys Ser Glu Asp Ala Gly Gly Ala Glu Gly Glu Thr
230          1090          1095          1100
232 Pro His Met Leu Leu Arg Pro His Val Phe Met Pro Glu Val Thr Pro
233 1105          1110          1115          1120
235 Asp Met Asp Tyr Leu Pro Arg Val Pro Asn Gln Gly Ile Ile Ile Asn
236          1125          1130          1135
238 Pro Met Leu Ser Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro Val Asp
239          1140          1145          1150
241 Gly Leu Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg Gly His
242          1155          1160          1165
244 Tyr Phe Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala Arg Arg
245          1170          1175          1180
247 Ile Thr Glu Val Trp Gly Ile Pro Ser Pro Ile Asp Thr Val Phe Thr
248 1185          1190          1195          1200
250 Arg Cys Asn Cys Glu Gly Lys Thr Phe Phe Phe Lys Asp Ser Gln Tyr
251          1205          1210          1215
253 Trp Arg Phe Thr Asn Asp Ile Lys Asp Ala Gly Tyr Pro Lys Pro Ile
254          1220          1225          1230
256 Phe Lys Gly Phe Gly Gly Leu Thr Gly Gln Ile Val Ala Ala Leu Ser
257          1235          1240          1245
259 Thr Ala Lys Tyr Lys Asn Trp Pro Glu Ser Val Tyr Phe Phe Lys Arg
260          1250          1255          1260
262 Gly Gly Ser Ile Gln Gln Tyr Ile Tyr Lys Gln Glu Pro Val Gln Lys
263 1265          1270          1275          1280
265 Cys Pro Gly Arg Arg Pro Ala Leu Asn Tyr Pro Val Tyr Gly Glu Met
266          1285          1290          1295
268 Thr Gln Val Arg Arg Arg Phe Glu Arg Ala Ile Gly Pro Ser Gln
269          1300          1305          1310
271 Thr His Thr Ile Arg Ile Gln Tyr Ser Pro Ala Arg Leu Ala Tyr Gln
272          1315          1320          1325
274 Asp Lys Gly Val Leu His Asn Glu Val Lys Val Ser Ile Leu Trp Arg
275          1330          1335          1340
277 Gly Leu Pro Asn Val Val Thr Ser Ala Ile Ser Leu Pro Asn Ile Arg
278 1345          1350          1355          1360
280 Lys Pro Asp Gly Tyr Asp Tyr Tyr Ala Phe Ser Lys Asp Gln Tyr Tyr
281          1365          1370          1375
283 Asn Ile Asp Val Pro Ser Arg Thr Ala Arg Ala Ile Thr Thr Arg Ser
284          1380          1385          1390
286 Gly Gln Thr Leu Ser Lys Val Trp Tyr Asn Cys Pro
287          1395          1400
290 <210> SEQ ID NO: 2
291 <211> LENGTH: 5041
292 <212> TYPE: DNA
293 <213> ORGANISM: Homo sapiens

```

RECEIVED

FEB 01 2001

TECH CENTER 1600/2900

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/556,246
 DATE: 01/23/2001
 TIME: 13:09:18

Input Set : A:\Rih26cip.app
 Output Set: N:\CRF3\01232001\I556246.raw

```

295 <400> SEQUENCE: 2
296 gcggccgcga ctattcggta cctgaaaaca acgatggcat ggaaaacact tcccatttac 60
297 ctgttgttgc tgcgtgtctgt tttcgtgatt cagcaagttt catctcaaga tttatcaagc 120
298 tgtgcaggga gatgtgggga aggttattct agagatgcc a cctgcaacty tgattataac 180
299 tgtcaaacact acatggagtg ctgcctgat tccaagagag tctgcaactgc ggagctttcc 240
300 tgtaaaggcc gctgctttga gtccttcgag agaggaggag agtggtgacty cgacgcccac 300
301 tgtaagaagt atgacaagt ctgtcccgat tatgagagtt tctgtgcaga agtgcataat 360
302 cccacatcac caccatcttc aaagaaagca cctccacctt caggagcact tcaaacctac 420
303 aaatcaacaa ccaaacgttc acccaaacca ccaacaaga agaagactaa gaaagttata 480
304 gaatcagagg aaataacaga agaacattct gtttctgaaa atcaagagtc ctctctctcc 540
305 tctctctctt cctctctctt tccaacaatt tggaaaatca agtcttccaa aaattcagct 600
306 gctaataag agattacagaa gaaactcaaa gtaaaagata acaagaagaa cagaactaaa 660
307 aagaaacctt ccccaaaccc accagttgta gatgaagctg gaagtggatt ggacaatggt 720
308 gacttcaagg tcacaactcc tgacacgtct accacccaac acaataaagt cagcacatct 780
309 cccaagatca caacagcaaa accaataaat cccagaccca gtcttccacc taattctgat 840
310 acatctaaag agacgtcttt gacagtgaat aaagagacaa cagttgaaac taaggaact 900
311 actacaacaa ataacagac ttcaactgat ggaaaagaga agactacttc cgtctaaagag 960
312 acacaaagta tagagaaac atctgtctaa gatttagcac ccacatctaa agtctgggt 1020
313 aaacctacac ccaagctga aactacaacc aaaggccctg ctctcaccac tcccaaggag 1080
314 cccacgcccc ccaactccaa ggaacctgca tctaccacac ccaagagcc cacaactacc 1140
315 accatcaagt ctgcacccac cacccccag gacctgcac ccaccaccac caagtctgca 1200
316 cccaccactc ccaaggagcc tgcacccacc accaccaagg agcctgcacc caccactccc 1260
317 aaggagcctg caccaccac caccaaggag cctgcaccca ccaccacca gtctgcaccc 1320
318 accactccca aggagcctgc acccaccacc ccaagaagc ctgcccacac tacccccag 1380
319 gacctgcac acccactccc caaggagcct acaccacca ctcccagga gctgcaccc 1440
320 accccaagg agcctgcac caccactccc aaagagcctg caccactgc ccccaagaag 1500
321 cctgcccacaa ctaccccacaa ggagcctgca cccaccactc ccaaggagcc tgcacccacc 1560
322 accccaagg agccttcacc caccactccc aaggagcctg caccaccac cccaagtct 1620
323 gacccacca ctaccaagga gctgcaccc accactacca agtctgcacc caccactccc 1680
324 aaggagcctt caccaccac caccaaggag cctgcaccca cactcccaa ggagcctgca 1740
325 cccaccacc ccaagaagcc tgcaccaact accccaagg agcctgcacc caccactccc 1800
326 aagggaacct caccaccac cccaagaag cctgcaccca cgcctcccaa agagcctgca 1860
327 ccaactacc ccaaggagc tgcacccacc accccaaga agctcagcc caccaccacc 1920
328 gagaagctcg caccaccac cctgagagag cccgcaccca ccaccctga ggagctgca 1980
329 cccaccacc ctgaggagcc caccaccacc accctgagg agcctgctcc caccactccc 2040
330 aaggcagcgg ctcccaacac cctaaggag cctgtcccaa ctaccctaa ggagcctgct 2100
331 ccaactacc ctaaggagcc tgcctcaact accctaagg agactgctcc aactaccct 2160
332 aaaggagcty ctccactac cctcaaggaa cctgcaccca ctactccaa gaagcctgcc 2220
333 cccaaggagc ttgcaccac caccaccaag gagccacat ccaccactc tgacaagccc 2280
334 gctccaaact cccctaagg gactgctcra actacccta aggagcctgc tccaactacc 2340
335 cctaaggagc ctgctccac taccctaa gggactgct caactaccct caaggaaact 2400
336 gacccacta ctcccaagaa gctgcccc aaggagcty caccaccac cccaagggg 2460
337 cccacatcca ccactctga caagcctgct ccaactacac ctaaggagac tgcctcaact 2520
338 accccaagg agcctgcacc cactaccccc aagaagcctg ctccaactac tctlgagaca 2580
339 cctctcccaa caacttcaga ggtctctact ccaactacca ccaaggagcc taccactatc 2640
340 caaaaagcc ctgatgaat aactcctgag ctttctgca aaccacacc aaaagctctt 2700
341 gaaaacagtc ccaaggaaac tgggttacct acaactaaga ctctgcagc gactaaact 2760
342 gaaatgacta caacagctaa agacaagaca acagaagag acttacgtac tacactgaa 2820
343 actacaacty ctgcactta gatgacaaaa gagacagcaa ctacaacaga aaaaactacc 2880

```

FYI:

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/556,246

DATE: 01/23/2001

TIME: 13:09:20

Input Set : A:\Rih26cip.app

Output Set: N:\CRF3\01232001\I556246.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4